

Appl. Serial No. : 10/621,803
Response dated April 30, 2007
Reply to Office Action of Oct. 31, 2006

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the Application.

Listing of Claims

44. (Currently amended) A device for amplifying and detecting a target nucleic acid, comprising:
- a solid support bead having a surface;
 - an amplification primer immobilized to the surface of said solid support bead, said amplification primer comprising a promoter sequence for an RNA polymerase and a sequence complementary to a first strand of said target nucleic acid; and
 - a labeled hybridization probe **separate from the amplification primer** immobilized to said surface,
- wherein said labeled hybridization probe comprises a sequence complementary to an amplicon synthesized using said amplification primer and said target nucleic acid as a template in a nucleic acid amplification reaction, and
- wherein prior to contact of said device with any nucleotide polymerizing enzyme said labeled hybridization probe comprises a detectable label and is immobilized to said surface.

45. (Previously presented) The device of Claim 44, wherein said surface comprises a material selected from the group consisting of glass and plastic.

Appl. Serial No. : 10/621,803

Response dated April 30, 2007

Reply to Office Action of Oct. 31, 2006

46. (Previously presented)The device of Claim 45, wherein said amplification primer immobilized to said surface is covalently immobilized to the surface of said solid support bead.

47. (Previously presented)The device of Claim 45, wherein said labeled hybridization probe immobilized to said surface is covalently immobilized to the surface of said solid support bead.

48. (Previously presented)The device of Claim 45, wherein said amplification primer and said labeled hybridization probe are each covalently immobilized to the surface of said solid support bead.

49. (Previously presented)The device of Claim 44, wherein said labeled hybridization probe comprises a fluorephore moiety and a quencher moiety.

50. (Previously presented)The device of Claim 44, wherein said device comprises two labeled hybridization probes immobilized to said surface, and wherein said two labeled hybridization probes comprise different sequences.

51. (Previously presented)The device of Claim 50, wherein prior to contact of said device with any nucleotide polymerizing enzyme there is immobilized to the surface of said solid support bead only one amplification primer sequence having a 3'-end that can be extended by a DNA polymerase using as a template said first strand of the target nucleic acid or the complement thereof.

52. (Previously presented)The device of Claim 44, wherein prior to contact of said device with any nucleotide polymerizing enzyme there is immobilized to the surface of said solid support bead only one amplification primer sequence having a 3'-end that can be extended by a DNA polymerase using as a template said first strand of the target nucleic acid or the complement thereof.

Appl. Serial No. : 10/621,803

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53. (Cancelled)

54. (New) The device of Claim 44, wherein said labeled hybridization probe comprises 2'-methoxy nucleotide analogs.